L Number	Hits	Search Text	DB	Time stamp
1	751	544/92, 514/230.5	USPAT	2004/09/22 13:09
2	24271	arthritis	USPAT	2004/09/22 13:09
3	113	(544/92, 514/230.5) and arthritis	USPAT	2004/09/22 13:09

KM

Day : Wednesday
Date: 9/22/2004
Time: 13:10:42

PALM INTRANET

Inventor Information for 10/634718

Inventor Name	City	State/Country
ORTWINE, DANIEL FRED	SALINE	MICHIGAN

Appln Info | Contents | Petition Info | Atty/Agent Info | Continuity Data | Foreign Data

Search Another: Application# [ ] Search **or Patent#** [ ] Search

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Attorney Docket # [ ] Search

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 13:CLASS 14:CLASS 15:CLASS

L1 STRUCTURE UPLOADED

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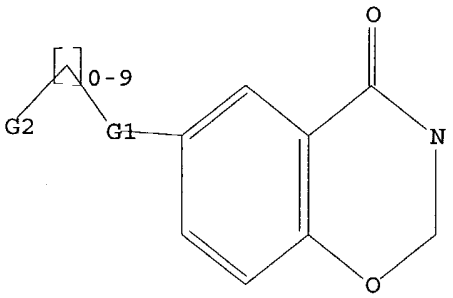
L1 HAS NO ANSWERS
L1 STR



G1 C,O,S,N,CH,CH2,Hy
G2 Cb,Hy

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full
FULL SEARCH INITIATED 12:04:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 7511 TO ITERATE

100.0% PROCESSED 7511 ITERATIONS 50 ANSWERS
SEARCH TIME: 00.00.01

L2 50 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	155.63

FILE 'CAPLUS' ENTERED AT 12:04:51 ON 22 SEP 2004
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FILE COVERS 1907 - 22 Sep 2004 VOL 141 ISS 13
FILE LAST UPDATED: 21 Sep 2004 (20040921/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2
L3 23 L2

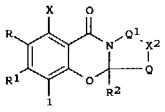
=> d ibib abs hitstr tot

L3 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:434305 CAPLUS
DOCUMENT NUMBER: 139:22217
TITLE: Carbonylbenzoxazine compounds for enhancing glutamatergic synaptic responses
INVENTOR(S): Rogers, Gary A.; Allan, Matthew; Harris, Clayton; Huang, Jianjie; Marrs, Christopher M.; Mueller, Rudolf; Rachwal, Stanislaw
PATENT ASSIGNEE(S): Cortex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045315	A2	20030605	WO 2002-US37646	20021125
WO 2003045315	A3	20030828		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1448537	A2	20040825	EP 2002-789846	20021125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: US 2001-333334P P 20011126
WO 2002-US37646 W 20021125

OTHER SOURCE(S): MARPAT 139:22217
GI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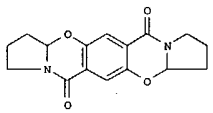
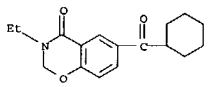
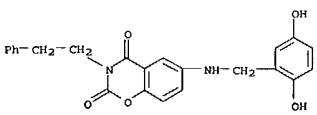

II

AB Benzoxazines I [R = Y, R1 = COA; R = COA, R1 = Y; Q, Q1 = H, CH2, O, S,

L3 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(un)substituted alkyl; R2 = H, alkyl; QR2 = cycloalkyl; X, X1 = R3, halo, CO2R3, CN, (un)substituted NH2, NO2, N3, OR3; R3 = H, (un)substituted aryl, aralkyl, alkyl, cycloalkyl, heterocyclic; X2 = bond, CO, CH2CH2, CH2CO, CH2O, (un)substituted CONH, CH2; Y = H, (un)substituted OH; A = (un)substituted NH2, OH, alkyl, cycloalkyl, aryl, heterocyclic; YA = bond,
N, (un)substituted NH] were prepd. They are useful in the prevention and treatment of cerebral insufficiency, including enhancement of receptor functioning in synapses in brain networks responsible for higher order behaviors. These brain networks are involved in cognitive abilities related to memory impairment, such as is obsd. in a variety of dementias, and in imbalances in neuronal activity between different brain regions, as
is suggested in disorders such as Parkinson's disease, schizophrenia and affective disorders. Thus, 2,5-dihydroxyterephthalic acid was cyclized with H2N(CH2)3CH(OEt)2 to give the benzoxazine II which was resolved by crystn. The enantiomers of II increased the field EPSP in rat hippocampal
tissue by 10% at 0.3 and 30 μM, resp.
IT **537034-90-5P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carbonylbenzoxazines for enhancing glutamatergic synaptic
responses)
RN 537034-90-5 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 6-(cyclohexylcarbonyl)-3-ethyl-2,3-dihydro- (9CI)
(CA INDEX NAME)

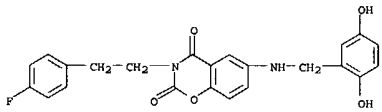


L3 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:680224 CAPLUS
DOCUMENT NUMBER: 137:352801
TITLE: Synthesis and Investigation of Conformationally Restricted Analogues of Lavendustin A as Cytotoxic Inhibitors of Tubulin Polymerization
AUTHOR(S): Mu, Fanrong; Lee, Debbie J.; Pryor, Donald E.; Hamel, Ernest; Cushman, Mark
CORPORATE SOURCE: Department of Medicinal Chemistry and Molecular Pharmacology, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, IN, 47907, USA
SOURCE: Journal of Medicinal Chemistry (2002), 45(21), 4774-4785
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of conformationally restricted analogs of lavendustin A were synthesized in order to elucidate the possible effects of different amide conformations on cytotoxicity in cancer cell cultures and on inhibition of
tubulin polymerization The conformationally restricted analogs were based on the
oxazinedione and isoindolone ring systems. In addition, the amide bond was
replaced by both cis and trans alkene moieties. Surprisingly, the results indicated very little effect of conformational restriction on biol. activity. Because all of the compds. synthesized had similar cytotoxicities and potencies as tubulin polymerization inhibitors, the side chain
present on the aniline ring system does not appear to be important in the biol. effects of the lavendustins. The hydroquinone ring of lavendustin A
may be a more important determinant of the biol. activity than the structure surrounding the aniline ring.
IT **474454-35-8P 474454-75-6P 474454-76-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of a series of conformationally restricted analogs of lavendustin A to establish a structure activity relationship for their antitumor activity and inhibition of tubulin polymerization)
RN 474454-35-8 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-[[(2,5-dihydroxyphenyl)methyl]amino]-3-(2-phenylethyl)- (9CI) (CA INDEX NAME)

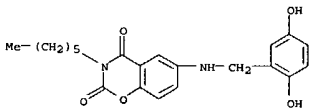


RN 474454-75-6 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione,

L3 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
[2-(4-fluorophenyl)ethyl]- (9CI) (CA INDEX NAME)



RN 474454-76-7 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-[[(2,5-dihydroxyphenyl)methyl]amino]-3-hexyl- (9CI) (CA INDEX NAME)

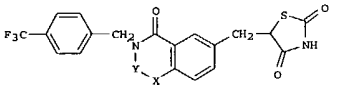


REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:347100 CAPLUS
DOCUMENT NUMBER: 134:353303
TITLE: preparation of thiazolidinyl-containing bicyclic heterocycles as humane peroxisome proliferator-activated receptor γ agonists
INVENTOR(S): Nomura, Masahiro; Murakami, Koji; Kakuta, Masaki
PATENT ASSIGNEE(S): Kyorin Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001131173	A2	20010515	JP 2000-242708	20000810
PRIORITY APPLN. INFO.:			JP 1999-235531 A	19990823

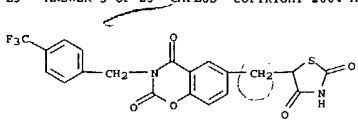
OTHER SOURCE(S): MARPAT 134:353303
GI



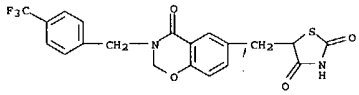
I

AB Title compds. I (YX = CO2, CH2O, CH:CH), their pharmaceutically acceptable salts, or hydrates, useful as for treatment of Type II diabetes and hyperlipemia, are prepared 2-Hydroxy-5-[(2,4-dioxothiazolidin-5-yl)methyl]-N-[(4-trifluorophenyl)methyl]benzamide was reacted with trioxane in the presence of AcOH in CH2Cl2 at room temperature for 2 day to give 42% 6-[(2,4-dioxothiazolidin-5-yl)methyl]-3-[(4-trifluorophenyl)methyl]-1,3-benzoxazin-4-one showing good transcription activity of proliferator-activated receptor γ in vitro.
IT **339152-88-4P 339152-89-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bicyclic heterocycles as humane peroxisome proliferator-activated receptor γ agonists)
RN 339152-88-4 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-[[4-(trifluoromethyl)phenyl]methyl]- (9CI) (CA INDEX NAME)

L3 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 339152-89-5 CAPLUS
CN 2,4-Thiazolidinedione, 5-[[3,4-dihydro-4-oxo-3-[[4-(trifluoromethyl)phenyl]methyl]-2H-1,3-benzoxazin-6-yl]methyl]- (9CI) (CA INDEX NAME)

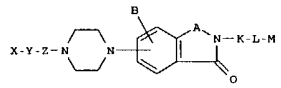


L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:793126 CAPLUS
DOCUMENT NUMBER: 130:52434
TITLE: Preparation of nitrogenous heterocyclic compounds as hyperlipemia remedies
INVENTOR(S): Ohkura, Naoto; Tsuruoka, Takashi; Usui, Takayuki; Hiraiwa, Yukiko; Matsushima, Tetsuya; Shiotani, Masaharu; Niizato, Tetsutaro; Nakatani, Yuuko; Suzuki, Shigeki; Kuroda, Chidsuko; Katano, Kiyoaki
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan; et al.
SOURCE: PCT Int. Appl., 194 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9854135	A1	19981203	WO 1998-JP2411	19980601
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875482	A1	19981230	AU 1998-75482	19980601
EP 999208	A1	20000510	EP 1998-923066	19980601
R: DE, ES, FR, GB, IT				
US 6417362	B1	20020709	US 1999-424708	19991130
US 2002156276	A1	20021024	US 2002-127491	20020423
US 6583144	B2	20030624		
PRIORITY APPLN. INFO.:			JP 1997-141410 A	19970530
			WO 1998-JP2411 W	19980601
			US 1999-424708 A3	19991130

OTHER SOURCE(S): MARPAT 130:52434
GI

L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



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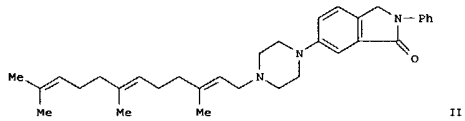
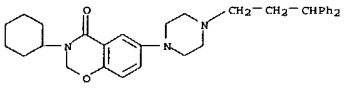


II

AB The title compds. [I; A = CR1R2(CH2)i; (wherein R1 and R2 each represents hydrogen or alkyl, i = 0-1), CH:CH, OCH2, or S(O)jCH2 (wherein j = 0-2); B = hydrogen or halogen; X = CR3R4R5, NR6R7, (CH2CH:C(CH3)CH2)pCH2CH:C(CH3)2, alkyl, cycloalkyl, Ph, cinnamyl, or heteroaryl; Y = (CH2)q, CH:CH, NR8, oxygen, or a bond; Z = carbonyl or a bond; K = alkylene or a bond; L = CH:CH or a bond; and M = hydrogen, alkyl, cycloalkyl, Ph, heterocycle, biphenyl, or diphenymethyl; p = 0-2; q = 1-6; R3-R5 = hydrogen, phenyl; R6-R7 = hydrogen, Ph, benzyl; R8 = hydrogen, C1-6 alkyl] are prepared I inhibit the biosynthesis of triglycerides in the liver and also inhibit the secretion of lipoproteins containing apolipoprotein B from the liver. I are hence useful for the prevention/treatment of hyperlipemia (especially hyper-VLDL-emia) and diseases caused thereby, such as arteriosclerotic diseases, e.g., myocardial infarct, and pancreatitis. Thus, title compound (II) was prepared by multi-step reactions and showed 56% and 90% inhibitory activity for apolipoprotein B and triglycerides. A formulation containing I was also presented.
IT **217492-34-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of nitrogenous heterocyclic compds. as hyperlipemia remedies)
RN 217492-34-7 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 3-cyclohexyl-6-[4-(3,3-diphenylpropyl)-1-piperazinyl]-2,3-dihydro-, dihydrochloride (9CI). (CA INDEX NAME)

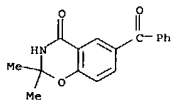
L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



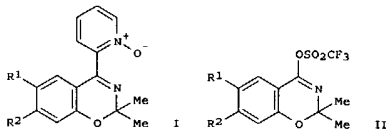
●2 HCl

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CN 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2,3-dihydro-2,2-dimethyl- (9CI) (CA INDEX NAME)

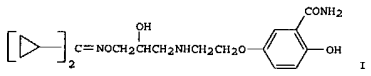


L3 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:243763 CAPLUS
DOCUMENT NUMBER: 125:10719
TITLE: Synthesis and biological activity of novel 1,3-benzoxazine derivatives as K+ channel openers
AUTHOR(S): Yamamoto, Satoshi; Hashiguchi, Shohei; Miki, Shokyo; Igata, Yumiko; Watanabe, Toshifumi; Shiraishi, Mitsuru
CORPORATE SOURCE: Pharmaceutical Res. Lab. I, Osaka, 532, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1996), 44(4), 734-45
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:10719
GI

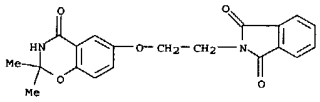


AB A new series of 1,3-benzoxazine deriva. with a 2-pyridine 1-oxide group at C-4, I (R1 = Cl, Br, CF3, NO2, C.tplbond.CH, etc.; R2 = H, Cl, F, Br, OEt, Me), was designed to explore novel K+ channel openers. Synthesis was carried out by using a palladium(0)-catalyzed carbon-carbon bond formation reaction of imino-triflates II with organozinc reagents and via a new one-pot 1,3-benzoxazine skeleton formation reaction of benzoylpyridines. The compds. were tested for vasorelaxant activity in tetraethylammonium chloride (TEA) and BaCl2-induced and high KCl-induced contraction of rat aorta to identify potential K+ channel openers, and also for oral hypotensive effects in spontaneously hypertensive rats. An electron-withdrawing group with the proper shape at C6 and a Me or halo group at C7 of the 1,3-benzoxazine nucleus were required for the development of optimal vasorelaxant and hypotensive activity. In particular, 2-(6-bromo-7-chloro-2,2-dimethyl-2H-1,3-benzoxazin-4-yl)pyridine 1-oxide showed more potent vasorelaxant activity (EC50 = 0.14 μm) against TEA and BaCl2-induced contraction and longer hypotensive effects than cromakalim.
IT **177174-50-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and potassium channel opening activity of benzoxazines)
RN 177174-50-4 CAPLUS

L3 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:235417 CAPLUS
DOCUMENT NUMBER: 120:235417
TITLE: New β-adrenoceptor-blocking agents derived from dicyclopropyl ketone oxime: influence of amino substituents on in vivo activity
AUTHOR(S): Charaf, A.; Bouzoubaa, M.; Bouzoubaa, A.; Blanc, M.; Leclerc, G.
CORPORATE SOURCE: Lab. Chim. Organ., Fac. Sci., Casablanca, Morocco
SOURCE: European Journal of Medicinal Chemistry (1994), 29(1), 69-74
CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



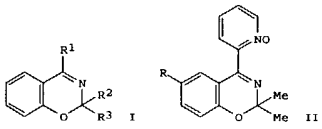
AB A series of oximinopropanolamines derived from dicyclopropyl ketone, in which the amine substituents were alkyl, cycloalkyl, aryl and aralkyl groups, has been synthesized. The β-adrenergic blocking properties were determined on anesthetized rats. Two N-aralkyl derivs. were found to be as potent as propranolol and compound I was twice as active as propranolol. Some structure-activity relationships are discussed.
IT **154267-11-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring cleavage of)
RN 154267-11-5 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[(3,4-dihydro-2,2-dimethyl-4-oxo-2H-1,3-benzoxazin-6-yl)oxy]ethyl]- (9CI) (CA INDEX NAME)



L3 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:448580 CAPLUS
DOCUMENT NUMBER: 117:48580
TITLE: Preparation of 4-(2-pyridyl)-1,3-benzoxazines and analogs as smooth muscle relaxants
INVENTOR(S): Shiraishi, Mitsuru; Hashiguchi, Shohei; Watanabe, Toshifumi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 76 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

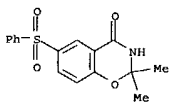
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 477789	A1	19920401	EP 1991-116002	19910920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CN 1060467	A	19920422	CN 1991-109186	19910225
ZA 9107436	A	19920527	ZA 1991-7436	19910918
JP 05097824	A2	19930420	JP 1991-242112	19910921
NO 9103745	A	19920326	NO 1991-3745	19910924
FI 9104487	A	19920326	FI 1991-4487	19910924
CA 2052145	AA	19920326	CA 1991-2052145	19910924
AU 9184748	A1	19920402	AU 1991-84748	19910924
AU 640820	B2	19930902		
HU 62003	A2	19930329	HU 1991-3050	19910924
US 5270308	A	19931214	US 1991-764692	19910925
PRIORITY APPLN. INFO.:			JP 1990-256478	19900925
			JP 1990-417050	19901228
			JP 1991-76742	19910315
			JP 1991-204235	19910814

OTHER SOURCE(S): MARPAT 117:48580
GI

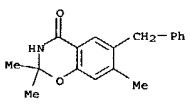


AB Title compds. [I; R1 = carbocyclic or C-attached heterocyclic group, hydrocarbyl, NR4C(:Z)YR5; R2, R3 = H, (substituted)alkyl; R2R3 = (substituted)alkylene; R4 = H, alkyl, alkanoyl; R5 = H, alkyl; R4R5 =

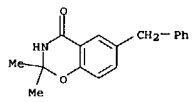
L3 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RN 142167-21-3 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-2,2-dimethyl-6-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



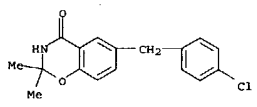
RN 142167-22-4 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-2,2,7-trimethyl-6-(phenylmethyl)- (9CI) (CA INDEX NAME)



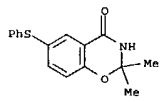
L3 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(oxo-substituted) alkylene; Y = S, O, NR6; R6 = H, alkyl, acyl; R5R6 = alkylene; Z = NCN, NNO2, CHNO2; benzene ring is optionally substituted], K-channel activators, were prepd. Thus, 5-cyanosalicylamide (prepn. given) was cyclocondensed with Me2CO and the product treated successively with (MeSO)2O and 2-bromopyridine to give, after oxidn., title compd. II (R = cyano). II (R = NO2) gave 61% redn. of blood pressure in SH rats at 1.0 mg/kg orally.
IT **142167-15-5P 142167-16-6P 142167-20-2P 142167-21-3P 142167-22-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of smooth muscle relaxants)
RN 142167-15-5 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-2,2-dimethyl-6-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 142167-16-6 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 6-[(4-chlorophenyl)methyl]-2,3-dihydro-2,2-dimethyl- (9CI) (CA INDEX NAME)



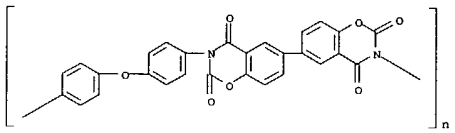
RN 142167-20-2 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-2,2-dimethyl-6-(phenylthio)- (9CI) (CA INDEX NAME)



L3 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1987:555595 CAPLUS
DOCUMENT NUMBER: 107:155595
TITLE: Polyimide molding compositions
INVENTOR(S): Takabayashi, Seiichiro; Kuramoto, Ken
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan; NTN-Rulon Industries Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62132960	A2	19870616	JP 1985-274614	19851206
PRIORITY APPLN. INFO.:			JP 1985-274614	19851206

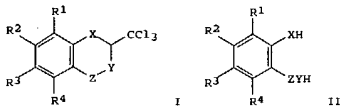
AB Molding compns. with good abrasion resistance comprise powdered aromatic polyimides 35-85, inorg. fibers (diameter 0.1-15 μ) 10-40, and solid lubricants (average diameter 1-30 μ) 5-25%. A mixture of powdered 3,3',4,4'-biphenyltetracarboxylic dianhydride-4,4'-oxydianiline copolymer 75, glass fibers 15, and powdered fluoropolymer (diameter 9μ, KTL610) parts showed abrasion 0.01 mm/h at abrading rate 128 m/min and 100 kg/cm2-m-min.
IT **28454-10-6**
RL: PEP (Physical, engineering or chemical process); PROC (Process) (moldings, containing inorg. fibers and solid lubricants, abrasion resistant)
RN 28454-10-6 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:156956 CAPLUS
DOCUMENT NUMBER: 94:156956
TITLE: Heterocyclic trichloromethyl compounds
INVENTOR(S): Boyle, Francis Thomas; Taylor, Michael Arthur
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
SOURCE: Span., 52 pp.
CODEN: SPXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 484472	A1	19800516	ES 1979-484472	19790926
PRIORITY APPLN. INFO.:			ES 1979-484472	19790926

GI

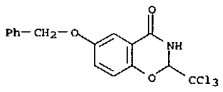


I II

AB Trichloromethyl-substituted benzoxazines and quinazolines I [X = O, NR5, where R5 = H, C1-4 alkyl or alkanoyl, (un)substituted phenyl; Y = O, NR6, where R6 = R5-type groups; Z = CO, (un)substituted methylene; R1-R4 = H, halo, cyano, formyl, OH, HON:CH, NO2, HO3S, CO2H, etc.] were prepared by cyclocondensing II with chloral with optional further transformations of the substituents. Thus, refluxing anthranilamide hydrochloride and chloral for 3 h yielded I (X = Y = NH, Z = CO, R1-R4 = H). The I inhibit methane production in ruminants.

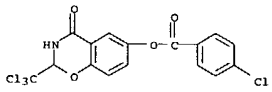
IT **75388-38-4P 75388-44-2P 76143-28-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and methane formation control in ruminants)

RN 75388-38-4 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-6-(phenylmethoxy)-2-(trichloromethyl)- (9CI) (CA INDEX NAME)

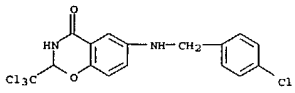


L3 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 75388-44-2 CAPLUS
CN Benzoic acid, 4-chloro-, 3,4-dihydro-4-oxo-2-(trichloromethyl)-2H-1,3-benzoxazin-6-yl ester (9CI) (CA INDEX NAME)



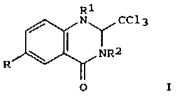
RN 76143-28-7 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 6-[[(4-chlorophenyl)methyl]amino]-2,3-dihydro-2-(trichloromethyl)- (9CI) (CA INDEX NAME)



L3 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:604681 CAPLUS
DOCUMENT NUMBER: 93:204681
TITLE: Heterocyclic trichloromethyl compounds as feed additives to reduce methane and increase propionic acid formation in ruminants
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55047665	A2	19800404	JP 1979-116240	19790912
EP 10348	A1	19800430	EP 1979-301721	19790822
R: BE, CH, DE, FR, GB, IT, LU, NL, SE				
ZA 7904449	A	19801126	ZA 1979-4449	19790823
AU 7950328	A1	19800320	AU 1979-50328	19790827
AU 524838	B2	19821007		
US 4268510	A	19810519	US 1979-70492	19790828
DK 7903619	A	19800313	DK 1979-3619	19790829
NO 7902941	A	19800313	NO 1979-2941	19790911
PRIORITY APPLN. INFO.:			GB 1978-36532	19780912

GI



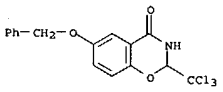
I

AB Heterocyclic compds. containing CCl3 groups, e.g., I (R = H, Cl; R1, R2 = H, Me), useful as feeding additives for cattle to reduce methane formation and increase EtCO2H formation in the ruminant juice, were prepared Thus, 63.5 g anthranilamide-HCl was refluxed in anhydrous chloral for 3 h to give I (R = R1 = R2 = H). Similarly benzoxazinone derivs. were prepared from salicylamides. ED50 and formulation were given.

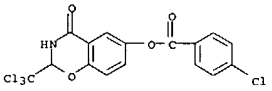
IT **75388-38-4P 75388-44-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and fermentation inhibition activity of)

RN 75388-38-4 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-6-(phenylmethoxy)-2-(trichloromethyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 75388-44-2 CAPLUS
CN Benzoic acid, 4-chloro-, 3,4-dihydro-4-oxo-2-(trichloromethyl)-2H-1,3-benzoxazin-6-yl ester (9CI) (CA INDEX NAME)

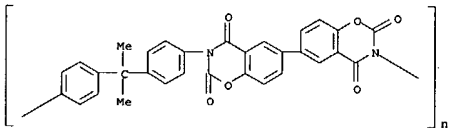


L3 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:45569 CAPLUS
DOCUMENT NUMBER: 84:45569
TITLE: Asymmetric semipermeable membranes of poly-1,3-benzoxazine-2,4-diones
INVENTOR(S): Knickel, Birger; Binsack, Rudolf; Rudolph, Hans; Rosenkranz, Hans J.; Bottenbruch, Ludwig
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2418996	A1	19751030	DE 1974-2418996	19740419
US 4036748	A	19770719	US 1975-568605	19750416
BE 828035	A1	19751017	BE 1975-155486	19750417
SE 7504451	A	19751020	SE 1975-4451	19750417
SE 403968	C	19790104		
SE 403968	B	19780918		
FI 7501157	A	19751020	FI 1975-1157	19750417
JP 50141587	A2	19751114	JP 1975-45936	19750417
JP 57041965	B4	19820906		
AT 7502947	A	19770915	AT 1975-2947	19750417
GB 1496816	A	19780105	GB 1975-15853	19750417
CA 1070065	A1	19800122	CA 1975-224902	19750417
DK 7501678	A	19751020	DK 1975-1678	19750418
NL 7504661	A	19751021	NL 1975-4661	19750418
FR 2268039	A1	19751114	FR 1975-12233	19750418
CH 610915	A	19790515	CH 1975-5018	19750418
PRIORITY APPLN. INFO.:			DE 1974-2418996	19740419

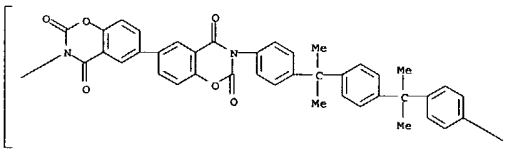
GI For diagram(s), see printed CA Issue.
AB Polymer I [57829-65-9] and 10 similar polymers containing 1,3-benzoxazine-2,4-dione structures had good heat resistance, pressure insensitivity, and hydrolysis resistance in acid and alkali and were useful for desalting seawater, brackish water, and wastewater by reverse osmosis. Thus, a mixture of I 15, N-methylpyrrolidone 82, and LiCl 3 g was cast as a 300 μ film, heated 20 min at 70°, and used at a flow rate of 60 l./m2/day to remove 97.5% of the salt from a 3.5% NaCl solution (containing HCl to give pH 1) at 130 atmospheric
IT **28454-11-7 57829-62-6 57829-63-7 57829-64-8 57829-65-9**
RL: USES (Uses)
(desalination membranes, heat- and acid-resistant)
RN 28454-11-7 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 57829-62-6 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

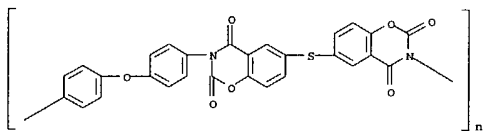
PAGE 1-A



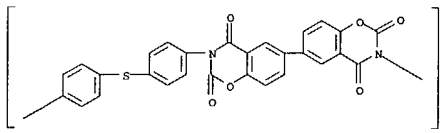
PAGE 1-B

RN 57829-63-7 CAPLUS
CN Poly[(2,4-dioxo-2H-1,3-benzoxazine-3,6,(4H)-diyl)thio(2,4-dioxo-2H-1,3-benzoxazine-6,3,(4H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

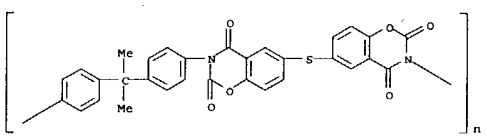
L3 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 57829-64-8 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenylenethio-1,4-phenylene] (9CI) (CA INDEX NAME)



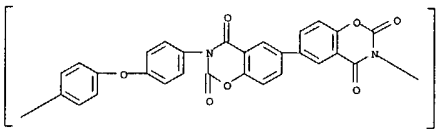
RN 57829-65-9 CAPLUS
CN Poly[(2,4-dioxo-2H-1,3-benzoxazine-3,6(4H)-diyl)thio(2,4-dioxo-2H-1,3-benzoxazine-6,3(4H)-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:464551 CAPLUS
DOCUMENT NUMBER: 81:64551
TITLE: Heat-resistant poly(1,3-benzoxazine-2,4-diones)
INVENTOR(S): Binsack, Rudolf; Bottenbruch, Ludwig
PATENT ASSIGNEE(S): Bayer A.-G.
SOURCE: Ger. Offen., 16 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2232467	A1	19740110	DE 1972-2232467	19720701
FR 2190872	A1	19740201	FR 1973-24058	19730629
FR 2190872	B1	19790504		
JP 49052899	A2	19740522	JP 1973-72999	19730629
GB 1408961	A	19751008	GB 1973-31470	19730702
PRIORITY APPLN. INFO.:			DE 1972-2232467	19720701

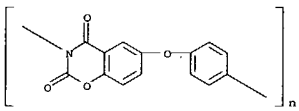
AB 1,3-Benzoxazine-2,4-dione group-containing polymers, e.g. 4,4'-bis[(phenoxycarbonyl)amino]diphenyl ether-diphenyl 4,4'-dihydroxybiphenyl-3,3'-dicarboxylate copolymer (I) [51821-77-3], were prepared and used as heat-resistant films. Transparent I films embrittled in the air after 2 months, 4 months, and 2 years at 275, 250, and 235.deg., resp. Thus, 42.64 g di-Ph 4,4'-dihydroxybiphenyl-3,3'-dicarboxylate and 80 mg 1,4-diazabicyclo[2.2.2]octane were added at 80.deg. to 44.04 g (4-PhO2CNHC6H4)2O in 275 ml Me2SO and the mixture was heated 40 min at 100-4.deg. to give 98% I of relative viscosity 2.80 (1 g in 100 ml H2SO4).
IT **28454-10-6**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(heat-resistant)
RN 28454-10-6 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:464550 CAPLUS
DOCUMENT NUMBER: 81:64550
TITLE: Heat-resistant poly(1,3-benzoxazine-2,4-diones)
INVENTOR(S): Binaack, Rudolf
PATENT ASSIGNEE(S): Bayer A.-G.
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2232463	A1	19740110	DE 1972-2232463	19720701
DE 2232463	B2	19790906		
DE 2232463	C3	19800508		
FR 2190871	A1	19740201	FR 1973-24057	19730629
FR 2190871	B1	19771223		
JP 49051285	A2	19740518	JP 1973-73000	19730629
JP 57030853	B4	19820701		
US 3839283	A	19741001	US 1973-374876	19730629
GB 1421801	A	19760121	GB 1973-31472	19730702
PRIORITY APPLN. INFO.:			DE 1972-2232463	19720701

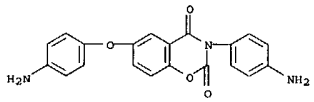
AB 1,3-Benzoxazine-2,4-dione group-containing polymers, e.g. poly[Ph 4-[(phenoxycarbonyl)amino]salicylate] (I) [51821-79-5], useful for transparent, heat resistant films, were prepared by condensation of the salicylates II (n = 0 or 1) with cyclization. Thus, Ph 4-[(phenoxycarbonyl)amino]salicylate was heated in the presence of 1,4-diazabicyclo[2.2.2]octane in Me2SO 1 hr at 100.deg. and 2 hr at 120.deg. to give 100% I of relative viscosity 1.16 (1 g in 100 ml H2SO4).
IT **52442-72-5**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(heat-resistant)
RN 52442-72-5 CAPLUS
CN Poly[(2,4-dioxo-2H-1,3-benzoxazine-3,6(4H)-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:414549 CAPLUS
DOCUMENT NUMBER: 81:14549
TITLE: Infrared spectroscopic studies on high-temperature-stable fibers and textiles with ATR [attenuated total reflection] technique. II. Infrared spectra of high-temperature-stable fibers
AUTHOR(S): Hummel, Dieter O.; Siesler, Heinz; Zoschke, Elsbeth; Vierling, Ilse; Morlock, Ute; Stadtlaender, Thomas
CORPORATE SOURCE: Inst. Phys. Chem. Kolloidchem., Cologne, Fed. Rep. Ger.
SOURCE: Melliand Textilberichte International (1973), 54(12), 1340-6
CODEN: MTXIAW; ISSN: 0375-9350
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The use of ATR-ir spectra for identification of high temperature fibers was
discussed and 27 representative spectra were given.
IT **30229-36-8**
RL: USES (Uses)
(fiber, attenuated total reflection ir spectrum of)
RN 30229-36-8 CAPLUS
CN Isophthalic acid, polyamide with 6-(p-aminophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

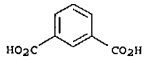
CM 1

CRN 30455-98-2
CMF C20 H15 N3 O4



CM 2

CRN 121-91-5
CMF C8 H6 O4



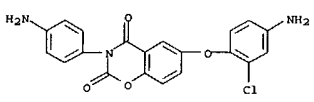
L3 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:406660 CAPLUS
DOCUMENT NUMBER: 75:6660
TITLE: Aromatic polyamides containing benzoxazinedione groups
INVENTOR(S): Kuenzel, Hans E.; Wolf, Gerhard Dieter; Reinehr, Ulrich; Nischk, Guenther
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1946789	A	19710325	DE 1969-1946789	19690916
PRIORITY APPLN. INFO.:			DE 1969-1946789	19690916

GI For diagram(s), see printed CA Issue.
AB The aromatic, thermally stable polyamides (I) where Ar is a phenylene group, X is H or Cl, and m and n are 0 or 1 are prepared by polycondensation
of terephthaloyl chloride or isophthaloyl chloride with diaminated benzoxazine-2,4-diones in a polar solvent at -10° to 60°. Among the benzoxazine-2,4-diones used are 3-(4-aminophenyl)-6-aminobenzoxazine-2,4-dione (II), 3-(3-aminophenyl)-7-aminobenzoxazine-2,4-dione, and 3-(4-aminophenyl-6-(4-aminophenoxy)benzoxazine - 2,4 - dione. Polycondensation of II with isophthaloyl chloride in N-methyl pyrrolidinone at 10-15° yields a polyamide with softening point .apprx.330° and excellent solubility in polar solvents. II is prepared by
condensing 5-nitrosalicylic acid with 4-nitroaniline to yield 5-nitrosalicylic acid p-nitroanilide (III), treating III with ClCO2Me and Et3N to yield 3-(4-nitrophenyl)-6-nitrobenzoxazine-2,4-dione (IV), and reducing both NO2 groups of IV with H in the presence of Raney Ni.
IT **30229-33-5P 30229-36-8P**
RL: PREP (Preparation)
(preparation of)
RN 30229-33-5 CAPLUS
CN Isophthalic acid, polyamide with 6-(4-amino-2-chlorophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

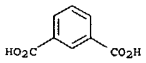
CM 1

CRN 30455-96-0
CMF C20 H14 Cl N3 O4



L3 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CM 2

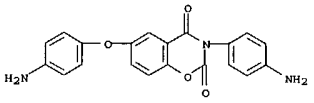
CRN 121-91-5
CMF C8 H6 O4



RN 30229-36-8 CAPLUS
CN Isophthalic acid, polyamide with 6-(p-aminophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

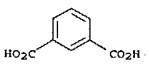
CM 1

CRN 30455-98-2
CMF C20 H15 N3 O4



CM 2

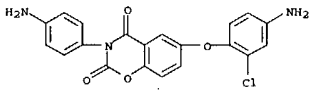
CRN 121-91-5
CMF C8 H6 O4



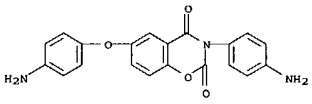
L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:4510 CAPLUS
DOCUMENT NUMBER: 74:4510
TITLE: Aromatic polyamides with heterocyclic ring systems. II
AUTHOR(S): Kuenzel, Hans E.; Bentz, Francis; Wolf, Gerhard Dieter; Blankenstein, Guenter; Nischk, Guenther
CORPORATE SOURCE: Org.-Wiss. Lab., Farbenfabriken Bayer A.-G., Dormagen/Rhein, Fed. Rep. Ger.
SOURCE: Makromolekulare Chemie (1970), 138, 223-50
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB The title polymers were prepared from isophthaloyl or terephthaloyl dichloride and the diamines shown, most of which were prepared by cyclizing the appropriate NO2-containing ortho-disubstituted aromatic compound and then reducing the NO2 groups. I (m = n = 0, X = O, Y = CO) gave soluble polyamides of poor thermal stability and textile properties, while polyamides from I (m = 1, n = 0, X = O, Y = CO) and I (m = 0, n = 1, X = O, Y = CO) had both good textile and good thermal properties. Polymers from I (m = n = 0, X = MeN, Y = CO), II (n = 0), and II (n = 1) had good thermal stability but poor textile properties. Polyamides from I (m = n = 0, X = RN, Y = SO2) had poor thermal and textile properties. III (n = 0) or its S,S-dioxide gave insol. polymers, while III (n = 1, X = O or SO2) gave soluble polymers of moderately good thermal stability. IV (R = H) gave insol. polymers, but IV (R = Me) and iso-phthaloyl dichloride gave a soluble polymer of low thermal stability.
IT **30229-33-5 30229-34-6 30229-36-8 30229-37-9 30229-38-0 30230-73-0**
RL: USES (Uses)
(fiber)
RN 30229-33-5 CAPLUS
CN Isophthalic acid, polyamide with 6-(4-amino-2-chlorophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

CM 1

CRN 30455-96-0
CMF C20 H14 Cl N3 O4

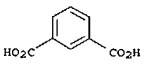


L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



CM 2

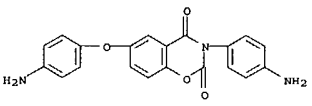
CRN 121-91-5
CMF C8 H6 O4



RN 30229-37-9 CAPLUS
CN Terephthalic acid, polyamide with 6-(p-aminophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

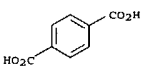
CM 1

CRN 30455-98-2
CMF C20 H15 N3 O4



CM 2

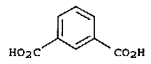
CRN 100-21-0
CMF C8 H6 O4



RN 30229-38-0 CAPLUS
CN Isophthalic acid, polyamide with 6-(p-aminophenoxy)-3-(m-aminophenyl)-2H-

L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CM 2

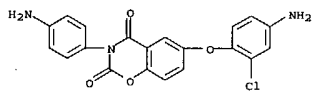
CRN 121-91-5
CMF C8 H6 O4



RN 30229-34-6 CAPLUS
CN Terephthalic acid, polyamide with 6-(4-amino-2-chlorophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

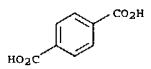
CM 1

CRN 30455-96-0
CMF C20 H14 Cl N3 O4



CM 2

CRN 100-21-0
CMF C8 H6 O4



RN 30229-36-8 CAPLUS
CN Isophthalic acid, polyamide with 6-(p-aminophenoxy)-3-(p-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

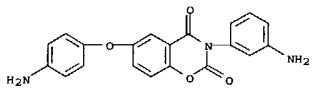
CM 1

CRN 30455-98-2
CMF C20 H15 N3 O4

L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

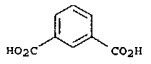
CM 1

CRN 30455-99-3
CMF C20 H15 N3 O4



CM 2

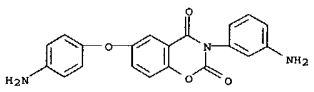
CRN 121-91-5
CMF C8 H6 O4



RN 30230-73-0 CAPLUS
CN Terephthalic acid, polyamide with 6-(p-aminophenoxy)-3-(m-aminophenyl)-2H-1,3-benzoxazine-2,4(3H)-dione (8CI) (CA INDEX NAME)

CM 1

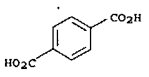
CRN 30455-99-3
CMF C20 H15 N3 O4



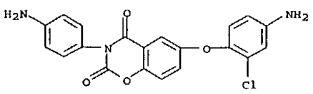
CM 2

CRN 100-21-0
CMF C8 H6 O4

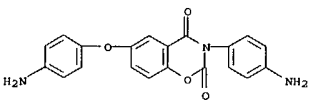
L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



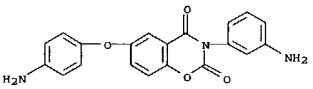
IT **30455-96-0P 30455-98-2P 30455-99-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 30455-96-0 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-(4-amino-2-chlorophenoxy)-3-(p-aminophenyl)- (8CI) (CA INDEX NAME)



RN 30455-98-2 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-(p-aminophenoxy)-3-(p-aminophenyl)- (8CI) (CA INDEX NAME)



RN 30455-99-3 CAPLUS
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-(p-aminophenoxy)-3-(m-aminophenyl)- (8CI) (CA INDEX NAME)

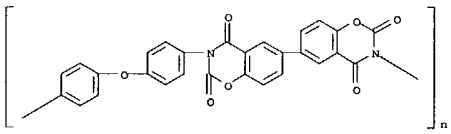


L3 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:499270 CAPLUS
DOCUMENT NUMBER: 73:99270
TITLE: Poly(benzoxazinediones), a class of high temperature plastics
AUTHOR(S): Bottenbruch, Ludwig
CORPORATE SOURCE: Wiss. Hauptlab., Farbenfabriken Bayer A.-G., Uerdingen, Fed. Rep. Ger.
SOURCE: Angewandte Makromolekulare Chemie (1970), 13, 109-25
CODEN: ANMCBO; ISSN: 0003-3146
DOCUMENT TYPE: Journal
LANGUAGE: German

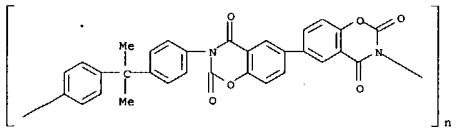
AB High-mol.-weight film-forming polybenzoxazinediones are prepared from di-Ph esters of O,O-dihydroxyaryldicarboxylic acids and diisocyanates, e.g. the di-Ph ester of 4,4'-dihydroxybiphenyldicarboxylic acid and diphenyl ether-4,4'-diisocyanate in Me2SO solution with tertiary amines as catalyst in an 1-step reaction which comprises the polyaddn. and the polycyclization step. The polymers have good long-term thermal stability at high temps. Their softening range is >390°. They have good mech. and elec. properties over a temperature range of -180 to 300°. Films can be oriented and crystallized by stretching. Because of their solubility in polar solvents, they can be worked up to shaped articles by solution casting. Polybenzoxazinedione films can be used as insulating films for high-temperature uses.

IT **28454-10-6P 28454-11-7P 28454-12-8P**
28454-16-2P 28454-20-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 28454-10-6 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

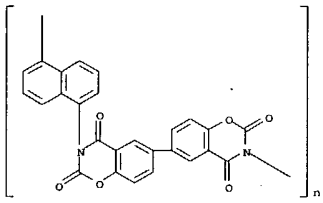


RN 28454-11-7 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

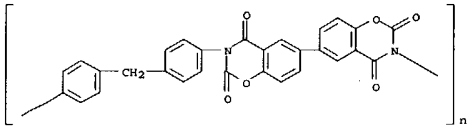
L3 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 28454-12-8 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,5-naphthalenediyl] (9CI) (CA INDEX NAME)

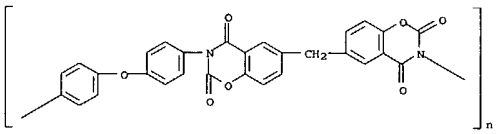


RN 28454-16-2 CAPLUS
CN
Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-p-phenylenemethylene-p-phenylene] (8CI) (CA INDEX NAME)



RN 28454-20-8 CAPLUS
CN
Poly[(2,4-dioxo-2H-1,3-benzoxazine-3,6(4H)-diyl)methylene(2,4-dioxo-2H-1,3-benzoxazine-6,3(4H)-diyl)-p-phenyleneoxy-p-phenylene] (8CI) (CA INDEX NAME)

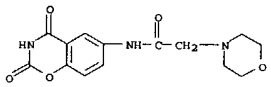
L3 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



L3 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:430479 CAPLUS
DOCUMENT NUMBER: 71:30479
TITLE: 6-(Aminoacetamido)dihydro-1,3-benzoxazine-2,4-diones
INVENTOR(S): Engel, Kurt
PATENT ASSIGNEE(S): Robapharm A.-G.
SOURCE: Patentschrift (Switz.), 3 pp.
CODEN: SWXXAS
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

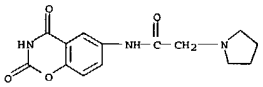
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 464926		19681231	CH	19610913

GI For diagram(s), see printed CA Issue.
AB The title products with the general formula I, which are pharmaceutically effective, are made by treating 6-aminodihydro-1,3-benzoxazine-2,4-dione (II) with chloroacetyl chloride to obtain 6-chloroacetyldihydro-1,3-benzoxazine-2,4-dione (III) which is refluxed with a base in EtOH to prepare I. Thus, 6 cc. ClCH2COCl was added to a stirred solution of 10.5 g. II in 100 cc. acetone and the mixture refluxed 1.5 hrs. to precipitate III) m. 265-70° (HCONMe2). A stirred solution of 5 g. III) 3 g. Me2NH, and 2.5 g. Et3N in 100 cc. EtOH was refluxed 5 hrs., concentrated in vacuo, and filtered and the precipitate washed with 100 cc. water to prepare I (R = R1 = Me), m. 248-50°; HCl salt m. 230-40°. By the same method were made the following I (R, R1, and m.p. given): Et, Et, 218° (HCl salt m. 260-2°); Me, H, - [HCl salt m. 195-8° (EtOH)]; (RR1 =) piperidino, 265-7° (HCl salt m. 286-7°); (RR1 =) morpholino, 256° (HCl salt m. 275°); (RR1 =) 1-pyrrolidinyl, - [HCl salt m. 270-3° (decomposition)]; Ph, H, 225-6.5°.
IT **1926-02-9P 1926-03-0P 2218-31-7P 2218-32-8P 23338-36-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 1926-02-9 CAPLUS
CN 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-(7CI, 8CI) (CA INDEX NAME)



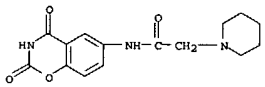
RN 1926-03-0 CAPLUS
CN 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-(7CI, 8CI) (CA INDEX NAME)

L3 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

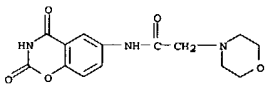


● HCl

L3 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

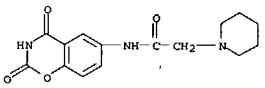


RN 2218-31-7 CAPLUS
CN 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

RN 2218-32-8 CAPLUS
CN 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, monohydrochloride (8CI) (CA INDEX NAME)



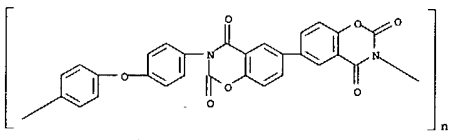
● HCl

RN 23338-36-5 CAPLUS
CN 1-Pyrrolidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, monohydrochloride (8CI) (CA INDEX NAME)

L3 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:4810 CAPLUS
DOCUMENT NUMBER: 70:4810
TITLE: 2H-1,3-Benzoxazine-2,4(3H)-dione aromatic polymers
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.
SOURCE: Fr., 5 pp.
CODEN: FRXXAK
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

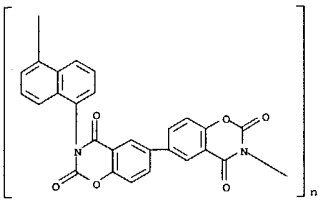
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1507149		19671222		
DE 1595579			DE	
GB 1173608			GB	
US 3510454		19700000	US	
PRIORITY APPLN. INFO.:			DE	19660103

GI For diagram(s), see printed CA Issue.
AB The title compds. with excellent heat stability and aging resistance, are prepared by treating a di-o-hydroxyarenedicarboxylate with a diisocyanate in the presence of a tertiary amine. Thus, to a solution of 18.25 parts diphenyl ether 4,4'-diisocyanate in 431 parts anhydrous Me2SO, 25.35 parts di-Ph resorcinol-4,6-dicarboxylate (II) was added, the mixture refluxed 3 hrs. at 105° in the presence of 0.02 part triethylenediamine, diluted with an equal volume Me2SO and ethylene chloride, filtered in vacuo, and the fine powder separated, washed with MeOH, and dried in vacuo at 100° to give I with a relative viscosity 2.9 (1%, HCONMe2, 25°). I was converted into transparent and colorless films having a tensile strength 1000 kg./cm.2 and elongation 70%. Other diisocyanates used were tolylene 2,4-diisocyanate and naphthylene 1,5-diisocyanate. Di-Ph hydroquinone-2,5-dicarboxylate, di-Ph 4,4'-dihydroxybiphenyl-3,3'-dicarboxylate, di-Ph 4,4'-dihydroxydiphenylmethane-3,3'-dicarboxylate, and di-Ph 4,4'-dihydroxy-3,3'-dimethyldiphenylmethane-5,5-dicarboxylate were used instead of II.
IT **28454-10-6P 28454-12-8P 28454-20-0P 28700-14-3P**
RL: PREP (Preparation)
(preparation of)
RN 28454-10-6 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

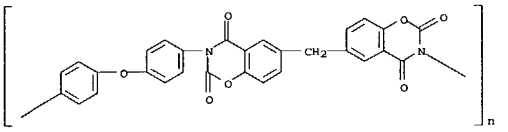


L3 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 28454-12-8 CAPLUS
CN Poly[(2,2',4,4'-tetraoxo[6,6'-bi-2H-1,3-benzoxazine]-3,3'(4H,4'H)-diyl)-1,5-naphthalenediyl] (9CI) (CA INDEX NAME)

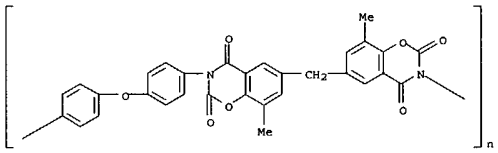


RN 28454-20-8 CAPLUS
CN Poly[(2,4-dioxo-2H-1,3-benzoxazine-3,6(4H)-diyl)methylene(2,4-dioxo-2H-1,3-benzoxazine-6,3(4H)-diyl)-p-phenyleneoxy-p-phenylene] (8CI) (CA INDEX NAME)



RN 28700-14-3 CAPLUS
CN Poly[(8-methyl-2,4-dioxo-2H-1,3-benzoxazine-3,6(4H)-diyl)methylene(8-methyl-2,4-dioxo-2H-1,3-benzoxazine-6,3(4H)-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



L3 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1965:22603 CAPLUS
DOCUMENT NUMBER: 62:22603
ORIGINAL REFERENCE NO.: 62:4034f-h,4035a-c
TITLE: 6-Aminodihydro-1,3-benzoxazine-2,4-diones
PATENT ASSIGNEE(S): Robapharm A.-G.
SOURCE: 29 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

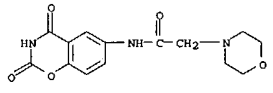
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1368739		19640807	FR	
CH 401058			CH	
GB 1011288			GB	
PRIORITY APPLN. INFO.:			CH	19610913

GI For diagram(s), see printed CA Issue.

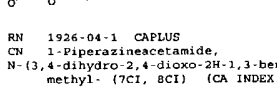
AB New derivs. (I) of benzoxazine were prepared by treating the appropriate halogen deriva. with 6-aminodihydro-1,3-benzoxazine-2,4-dione (II), in turn prepared by reduction of the corresponding 6-nitro compound (III), described in Belg. 586,064. Thus, III 40 g., 45 g. Sn, and 200 ml. H2O was treated at 90° with 200 ml. concentrated HCl, heated at 70-5° 2 hrs., filtered off, the precipitate taken up in 500 ml. concentrated HCl, and the mixture filtered and cooled to yield II.HCl, m. 290° (decomposition). II.HCl in H2O treated with NaOH to pH 6.7 gave II, m. 255-4° (decomposition). II (20 g.) with 20 ml. iso-PrOH and 20 ml. 85% HCO2H treated at 25° with 20 ml. 34% HCHO, the mixture heated on a steam bath 5 hrs., and NaOH added to pH 7 gave 25g. I (R = R1 = Me), m. 238-40° (decomposition). II (3.6 g.) in 100 ml. C5H5N treated dropwise at 20° with 30 g. ClCO2Et, and the mixture heated 2 hrs. at 50°, cooled, and poured onto ice gave I (R = H, R1 = EtCO2), m. 220-1.5° (EtOH). The following I were similarly prepared (R, R1, reaction time (hrs.) and temperature, and m.p. given): H, Bu, 2, 80°, 165°; H, iso-BuCO2, 2, 80°, 200°; H, PhCO2, 2, 100°, 217-18°; H, PhCH2CO2, 2.5, 80°, 204-10°; and H, CH2:CH, CH2CO2,2,80°,192°. II(1.7 g.), 1.0 g. MeNHCOCl, and 1.1 g-Et3N in 50 ml. C6H6 was refluxed 12 hrs., cooled, and the precipitate washed with dilute HCl to give I (R = H, R1 = MeNHCO) (IV), m. 300°. II (3.5 g.) in 50 ml. C6H6 at room temperature was stirred with dropwise addition of 2.5 g. MeNCO, and the mixture refluxed 5 hrs., cooled, and worked up to yield IV. The following I were similarly prepared (R, R1, and m.p. given): H, EtNHCO, 320°; H, BuNHCO, 310-20° (decomposition); H, PhNHCO, 320-5° (decomposition); H, PhCH2NHCO, 288-90°; and H, Me2NHCO, 315-24° (decomposition). II (10.5 g.) suspended in 100 ml. Me2CO was treated dropwise with 6 cc. AcCl, and the mixture refluxed 3 hrs. to give I (R = H, R1 = Ac), m. 300°. Similarly was prepared I (R = H, R1 = ClCH2CO), m. 265-70°. This (5 g.) in 100 ml. EtOH containing 2.5 g. Et3N and 9 ml. 33% weight/volume Me2NH was refluxed 5 hrs. and evaporated in vacuo, and 100 ml. H2O added to yield I (R = H, R1 = Me2NCH2CO), m. 230-40° (decompn.). The following I were similarly prepd. (R, R1, and m.p. given): H, Et2NCH2CO, 260-2°; H, MeNHCH2CO, 195-8°; H, morpholinoacetyl, 265-7°; H, piperidinoacetyl, 265-7°; H, N-methylpiperazinoacetyl, 258-60°; H, pyrrolidinoacetyl, 270-3°; H, PhNHCH2CO, 225-6°. II (3.5 g.) in 15 cc. C5H5N was treated with 5 g. p-MeC6H4SO2Cl, the mixt. refluxed 5 min., cooled, and 30 g. ice added to yield I (R = H, R1 = p-MeC6H4SO2), m. 258-61°. Similarly was prepared I (R = H, R1 = p-H2NC6H4SO2), m. 236°. II (8.9 g.) was suspended in 100 ml. HCONMe2 by heating then rapid cooling, and the mixt. heated 1 hr. at 70° with 6.5 g. 4-formylpyridine to yield I (RR1 = 4-pyridylmethylene), m. 298°. The compds. described had pharmacodynamic properties.

IT **1926-02-9**, 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)- **1926-03-0**, 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)- **1926-04-1**, 1-Piperazineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-4-methyl- **1926-05-2**, 1-Pyrrolidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)- **2218-31-7**, 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, hydrochloride **2218-32-8**, 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, hydrochloride **2218-33-9**, 1-Piperazineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-4-methyl-, hydrochloride
(preparation of)

RN 1926-02-9 CAPLUS
CN 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)- (7CI, 8CI) (CA INDEX NAME)

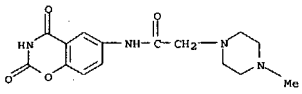


RN 1926-03-0 CAPLUS
CN 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)- (7CI, 8CI) (CA INDEX NAME)

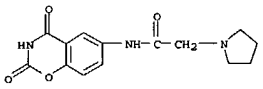


RN 1926-04-1 CAPLUS
CN 1-Piperazineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-4-methyl- (7CI, 8CI) (CA INDEX NAME)

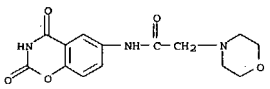
L3 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 1926-05-2 CAPLUS
CN 1-Pyrrolidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-(7CI, 8CI) (CA INDEX NAME)

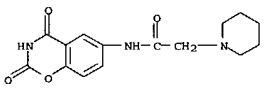


RN 2218-31-7 CAPLUS
CN 4-Morpholineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

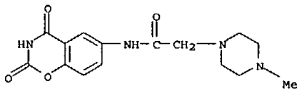
RN 2218-32-8 CAPLUS
CN 1-Piperidineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

L3 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 2218-33-9 CAPLUS
CN 1-Piperazineacetamide, N-(3,4-dihydro-2,4-dioxo-2H-1,3-benzoxazin-6-yl)-4-methyl-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



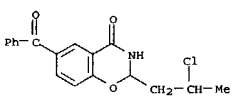
● HCl

L3 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1960:129216 CAPLUS
DOCUMENT NUMBER: 54:129216
ORIGINAL REFERENCE NO.: 54:24819h-i
TITLE: 2,4,6,8-Tetra-tert-butylphenoxazine
INVENTOR(S): Rickert, Herbert B.; Geiger, Werner M.
PATENT ASSIGNEE(S): Dow Chemical Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2945856		19600719	US	

AB Zn dust (21 g.) was added over 15 min. to 25 g. 2,4-di-tert-butyl-6-nitrophenol dispersed in 200 ml. AcOH (the temperature rose spontaneously from 25 to 100°), cooled to room temperature, the precipitated product washed with hot H2O, and recrystd. from Me2CO to obtain the title compds., m. 188°. The product was a parasiticide and herbicide.

IT **101735-65-3**, 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloropropyl)-2,3-dihydro-
(preparation of)
RN 101735-65-3 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloropropyl)-2,3-dihydro- (6CI) (CA INDEX NAME)



L3 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1960:129215 CAPLUS
DOCUMENT NUMBER: 54:129215
ORIGINAL REFERENCE NO.: 54:24818i,24819a-h
TITLE: Derivatives of 4-oxo-2,3-dihydrobenzo-1,3-oxazines
INVENTOR(S): Ohnacker, Gerhard; Scheffler, Heinz
PATENT ASSIGNEE(S): Dr. Karl Thomae G. m. b. H.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2943087		19600628	US	
DE 1135908			DE	
GB 866433			GB	

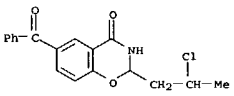
AB Acid catalyzed condensation of a salicylamide with an aldehyde gave 2-derivs. of 4-oxo-2,3-dihydrobenzo-1,3-oxazine (I). Salicylamide (II) (13.7 g.), 17.6 g. β-ethoxypropionaldehyde di-Et acetal, and 18 ml. glacial AcOH were added to 150 ml. HCCl3, the mixture refluxed 1 hr. while dry HCl was passed through it, the HCCl3 removed by vacuum distillation, 200 ml. H2O added to the residue, the precipitate triturated with 5% NaOH solution, washed with H2O and recrystd. from EtOH to yield 71% 2-(β-chloroethyl)-4-oxo-2,3-dihydrobenzo-1,3-oxazine, m. 146-7° (decomposition). Other acids used to effect similar condensations were HBr, p-toluenesulfonic, concentrated H2SO4, benzenesulfonic, phosphoric, concentrated HCl, 90% formic, and 48% HBr. Solvents used in similar condensations were C6H6, PhMe, glacial AcOH, absolute EtOH, and propionic acid. Condensation of II with other aldehydes gave the following title products (aldehyde and m.p. given): acrolein (III) and HCl, 146-7° (decomposition); m-allyloxybenzaldehyde (IV), 131-2°; m-(β-chloroethoxy)benzaldehyde (V), 149-50°; o-(β-bromoethoxy)benzaldehyde (VI), 145-7°; p-(β-propoxyethoxy)benzaldehyde (VII), 111-12°; crotonaldehyde (VIII) and HCl, 124-5° (decomposition); α-chlorobutyraldehyde (IX), 70-1°; α-methylacrolein (X) and HCl, 118-19°; β-chloropropionaldehyde di-Et acetal (XI), 146-7° (decomposition); p-allyloxybenzaldehyde (XII), 196-7°; salicylaldehyde β-chloroethyl ether (XIII), 139-41°; p-(β-chloroethoxy)benzaldehyde (XIV), 191-2°; p-(β-ethoxy-ethoxy)benzaldehyde (XV), 134-6°; α-bromoheptanal 133-5°; α-ethylacrolein (XVII), 124°; β-chloropropionaldehyde (XVIII), 146-7° (decomposition); β-ethoxypropionaldehyde (XIX), 146-7° (decomposition); chloroacetal (XX), 140-2°; β-bromopropionaldehyde, 120-1° (decomposition); chloroacetaldehyde, 140-2°; o-allyloxybenzaldehyde, 91-2°; salicylaldehyde β-methoxyethyl ether, 95-8°; salicylaldehyde β-ethoxyethyl ether, 96-7°; α-bromoisovaleraldehyde, 142-4°; γ-chlorobutyraldehyde, 82-4°; and α-chloroisobutyraldehyde, 107-8°. Condensation of 5-chlorosalicylamide with aldehydes gave title compds. (same data): III and HCl, 152-3°; III and HBr, 160-2°; IV, 185-6°; V, 184-95°; VI, 202-3°; VII, 171-2°;

L3 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
VIII and HCl, 144° (decompn.); IX, 112-13°; X, 138-40°; salicylaldehyde allyl ether (XXI), 126-8°; o-(β-butoxyethoxy)benzaldehyde (XXII), 90-1°; bromoacetaldehyde, 182-3°; α-bromoisobutyraldehyde, 133-4°. Similarly, 5-bromosalicylamide gave title products (same data): III and HCl, 158-60° (decompn.); IV, 192-3°; V, 186-7°; VII, 163-4°; VIII and HCl, 142° (decompn.); IX, 145-6°; X, 139-41°; XI, 162-3°; XII, 214-16°; XIII, 186-7°; XIV, 234-5°; XV, 188-90°; XVI, 111-12°; XVII, 136°; XXI, 129-31°; and XXII, 115-17°. 5-Acetylsalicylamide gave title products (same data): III and HCl, 167-8° (decompn.); VIII and HCl, 175° (decompn.); X and HCl, 158-9°; XVII and HCl, 153° (decompn.); and XX, 156-8° (decompn.). 5-(Chloroacetyl)salicylamide gave title products (same data): III and HCl, 187-8° (decompn.); VIII and HCl, 180-1° (decompn.); and XVIII, 187-8° (decompn.). 5-(Phenylacetyl)salicylamide gave title products (same data): III and HCl, 161° (decompn.); VIII and HCl, 182° (decompn.); and XVIII, 196° (decompn.). 5-Propionylsalicylamide gave title products (same data): III and HCl, 180-1° (decompn.); X and HCl, 167-9° (decompn.); and XXII, 176-7° (decompn.). 5-(β-Chloropropionyl)salicylamide gave title products (same data): III and HCl, 184-6°; and VIII and HCl, 176-8° (decompn.). 5-Butyrylsalicylamide gave title products (same data): III and HCl, 173° (decompn.); III and HBr, 148-50°, VIII and HCl, 164° (decompn.); X and HCl, 142-3°; and XIX and HCl, 173° (decompn.). 5-(γ-Chlorobutyryl)salicylamide gave a product with III and HCl, m. 169° (decompn.). 5-Benzoylsalicylamide gave title products (same data): III and HCl, 195-6°; VIII and HCl, 192° (decompn.); and XVIII, 196° (decompn.). All the products described exhibited analgesic, antipyretic, and antiphlogistic properties. Cf. CA 51, 8812b.

IT **101735-65-3**, 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloropropyl)-2,3-dihydro- **101735-66-4**, 4H-1,3-Benzoxazin-4-one, 2-(2-chloroethyl)-2,3-dihydro-6-phenylacetyl- **102173-36-4**, 4H-1,3-Benzoxazin-4-one, 2-(2-chloropropyl)-2,3-dihydro-6-phenylacetyl- **107154-80-3**, 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloroethyl)-2,3-dihydro-
(preparation of)

RN 101735-65-3 CAPLUS

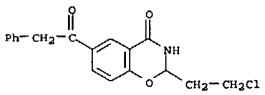
CN 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloropropyl)-2,3-dihydro- (6CI) (CA INDEX NAME)



RN 101735-66-4 CAPLUS

L3 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

CN 4H-1,3-Benzoxazin-4-one, 2-(2-chloroethyl)-2,3-dihydro-6-phenylacetyl- (6CI) (CA INDEX NAME)



RN 102173-36-4 CAPLUS

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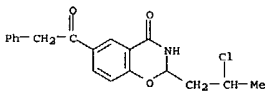
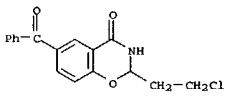


RN 107154-80-3 CAPLUS

CN 4H-1,3-Benzoxazin-4-one, 6-benzoyl-2-(2-chloroethyl)-2,3-dihydro- (6CI) (CA INDEX NAME)



L3 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1960:118222 CAPLUS

DOCUMENT NUMBER: 54:118222

ORIGINAL REFERENCE NO.: 54:22602f-h

TITLE: Reactions between organic nitrogen compounds and ethyl orthoformates. II. Amides

AUTHOR(S): Runti, Carlo; D'Osualdo, Valnea; Ulian, Franco

CORPORATE SOURCE: Univ. Trieste, Italy

SOURCE: Annali di Chimica (Rome, Italy) (1959), 49, 1668-76
CODEN: ANCRAI; ISSN: 0003-4592

DOCUMENT TYPE: Journal

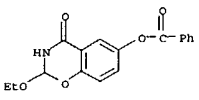
LANGUAGE: Unavailable

AB RCONH2 (I) (2 g.) refluxed with 15-30 ml. HC(OEt)3 (II) 9-12 hrs., cooled and filtered gave RCONH:NCOR (III) (R and m.p. given): Me, 278°; Et, 250°; Pr, 240°; Ph, 245°; NCC6H4, 227°; C5H4N, 224°; NCCH2, 114°. When R was a substituted benzene ring with o-substituents like OH or NH2, heterocyclic compds. were obtained. Thus, 2 g. salicylamide refluxed 18 hrs. with 15 ml. II, the whole cooled and filtered gave 2-ethoxy-2,3-dihydro-4-oxo-1,3-benzoxazine, m. 124°. Similarly, the 6-OH derivative gentisylamide and the 7-OH derivative from β-resorcylamide were prepared Anthranylamide (2 g.) refluxed 18 hrs. with 30 ml. II, cooled, filtered and crystallized from C6H6 gave 66% 4-hydroxyquinazoline, m. 218°. Oxaldiamide did not react with II even when Ac2O was present; however, 3 g. malondiamide refluxed 36 hrs. with 50 ml. II and 3 ml. Ac2O, the precipitate filtered off without cooling and crystallized from H2O gave 4,6-dihydroxypyrimidine. In analogy with the known reaction (Ainsworth, CA 50, 13886b) between II and thiosemicarbazide to form 2-amino-1,3,4-thiadiazole, the behavior of semicarbazide was tested; thus, 3 g. semicarbazide-HCl refluxed 1 hr. with 25 ml. II, cooled, filtered and crystallized from EtOH gave 5-hydroxy-1H-1,2,4-triazole instead of the expected 2-amino-1,3,4-oxadiazole.

IT **101569-20-4**, 4H-1,3-Benzoxazin-4-one, 2-ethoxy-2,3-dihydro-6-hydroxy-, benzoate
(preparation of)

RN 101569-20-4 CAPLUS

CN 4H-1,3-Benzoxazin-4-one, 2-ethoxy-2,3-dihydro-6-hydroxy-, benzoate (6CI) (CA INDEX NAME)



G3:C,N

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 13:CLASS 14:CLASS 18:CLASS 19:CLASS

L1 STRUCTURE UPLOADED

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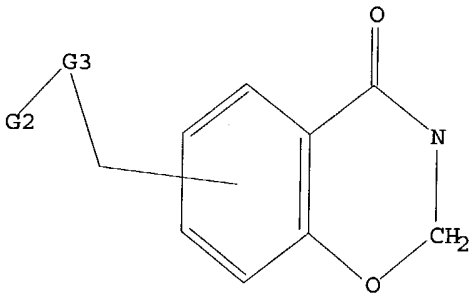
L1 HAS NO ANSWERS
L1 STR



G1 C,O,S,N,CH,CH2,Hy

G2 Cb,Hy

G3 C,N

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 266 TO ITERATE

100.0% PROCESSED 266 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 4342 TO 6298
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

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FULL SEARCH INITIATED 12:15:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5135 TO ITERATE

100.0% PROCESSED 5135 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L3 1 SEA SSS FUL L1

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COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	155.42	155.63

FILE 'CAPLUS' ENTERED AT 12:15:28 ON 22 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 22 Sep 2004 VOL 141 ISS 13
FILE LAST UPDATED: 21 Sep 2004 (20040921/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4 1 L3

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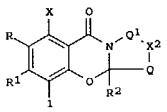
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:434305 CAPLUS
DOCUMENT NUMBER: 139:22217
TITLE: Carbonylbenzoxazine compounds for enhancing glutamatergic synaptic responses
INVENTOR(S): Rogers, Gary A.; Allan, Matthew; Harris, Clayton; Huang, Jianjie; Marra, Christopher M.; Mueller, Rudolf; Rachwal, Stanislaw
PATENT ASSIGNEE(S): Cortex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045315	A2	20030605	WO 2002-US37646	20021125
WO 2003045315	A3	20030828		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1448537	A2	20040825	EP 2002-789846	20021125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: US 2001-333334P P 20011126
WO 2002-US37646 W 20021125

OTHER SOURCE(S): MARPAT 139:22217
GI



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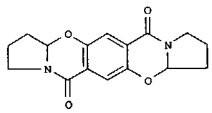

II

AB Benzoxazines I [R = Y, R1 = COA; R = COA, R1 = Y; Q, Q1 = H, CH2, O, S, (un)substituted alkyl; R2 = H, alkyl; QR2 = cycloalkyl; X, X1 = R3, halo, CO2R3, CN, (un)substituted NH2, NO2, N3, OR3; R3 = H, (un)substituted aryl, aralkyl, alkyl, cycloalkyl, heterocyclic; X2 = bond, CO, CH2CH2, CH2CO, CH2O, (un)substituted CONH, CH2; Y = H, (un)substituted OH; A = (un)substituted NH2, OH, alkyl, cycloalkyl, aryl, heterocyclic; YA = bond, N, (un)substituted NH] were prepd. They are useful in the prevention and treatment of cerebral insufficiency, including enhancement of receptor functioning in synapses in brain networks responsible for higher order behaviors. These brain networks are involved in cognitive abilities related to memory impairment, such as is obsd. in a variety of dementias, and in imbalances in neuronal activity between different brain regions, as is suggested in disorders such as Parkinson's disease, schizophrenia and affective disorders. Thus, 2,5-dihydroxyterephthalic acid was cyclized with H2N(CH2)3CH(OEt)2 to give the benzoxazine II which was resolved by crystn. The enantiomers of II increased the field EPSP in rat hippocampal tissue by 10% at 0.3 and 30 μM, resp.

IT **537034-85-8P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of carbonylbenzoxazines for enhancing glutamatergic synaptic responses)
RN 537034-85-8 CAPLUS
CN 4H-1,3-Benzoxazin-4-one, 7-(cyclohexylacetyl)-3-ethyl-2,3-dihydro- (9CI) (CA INDEX NAME)